

74. Before talking about the use of masks in the Apollo 11 photo, let's talk about taking doubles and porridge.

14-18 minutes

Now it is no longer a secret for anyone that on the "lunar" photographs of the Apollo missions, instead of living astronauts, there are motionless low-growing mannequins, in the distant plans, instead of a real electric rover, there is a toy model, and the lunar module is just a dummy, which on many plans are replaced by a reduced copy, miniature. To make the model of the lunar module rotate in different planes, depicting the process of undocking from the command module, a reduced copy of the lunar module, taken from different angles, was cut out along the perimeter using masks and inserted into the frame of the "view of space through the window".

We have already written about this in several articles, for example, [69. "Apollo 11." There are 18 fake shots in just one cassette. How will NASA's defenders squirm?](#)

Before describing how masks for Apollo 11 photographs were made, let us make a small overview of the use of masks in cinema, so that you understand that they were used very often in the pre-computer era. In film literature, external masks are called "porridge".

Kachets were used in the cinema when it was necessary, for example, to shoot "doubles" - this is when the same actor performed two roles at once.

For example, in the film "Spring" (1947), Lyubov Orlova plays both a theater actress and an institute scientist.

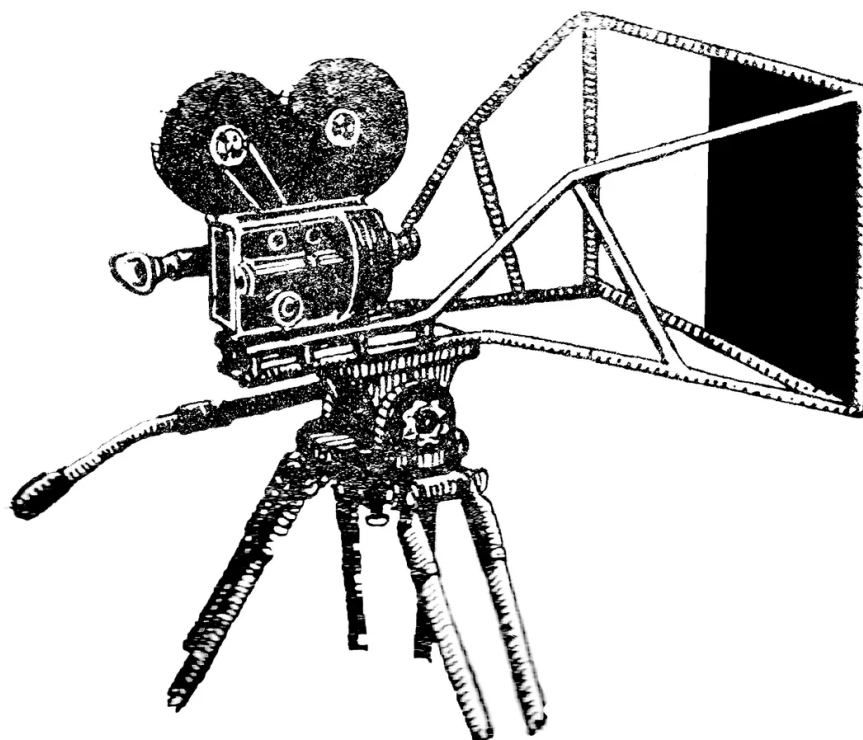


Still from the film "Spring" (1947)

Still from the film "Spring" (1947)

The given frame from the movie "Spring" consists of two independent parts, separated by a vertical line. But this dividing line is naturally not visible. In order not to betray the way of shooting, the actors should not come close to this border, so there is an empty gap between the actors, along which the dividing line runs. In the above frame, the vertical dividing line is to the left of the middle.

When shooting such shots, porridge is used - an opaque shutter, most often made of black paper, covering one part of the frame, and counter-cashe is a shutter on the other side of the frame. For combined surveys, a special device is made, which is a lightweight structure made of thin-walled steel pipes. The structure consists of a socket, to the narrow part of which a shooting camera is attached, and to the wide part there is a frame for fixing porridge and counter-cashe.



Device for fixing porridge in front of the camera.

Device for fixing porridge in front of the camera.

Part of the frame is covered with an opaque black porridge and the first exposure is taken. Then I rewind the film (according to the counter) back to the beginning, instead of porridge, on the other side, they put a countercash and shoot the second part of the frame.

To protect the inside of the porridge from light exposure, the bell is closed with a cover made of black cloth. For the convenience of making porridge, glass is used, reinforced in the frame of this compendium. When working with glass, the operator sets the frame and, looking through the magnifying glass of the apparatus, determines the line that is advantageous for padding. Next, the operator's assistant marks points on the glass with a wax pencil that coincide with the division line selected on the subject of the survey, and the operator, looking through the magnifying glass of the apparatus, controls the correctness of drawing these points. The marked points are connected by a line, and porridge and counter-kasha are cut out of black paper along it. The kachet is fixed to the glass with raw rubber latex glue and the subject is photographed with the first exposure.

Before shooting the object with the second exposure, the counter-cashe is placed on the glass close to the porridge, glued with glue, and

only after that the porridge is removed from the glass

In theory, porridge can be fortified on a factory compendium as well.



Compendium (light shielding device) to the lens, used for attaching light filters.

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But then the border of the mess will be very close to the lens, and this border will turn out to be very blurred and very wide.

When the porridge is at a distance of about one meter, the interface is narrow. At the end of the film "Spring", during the performance of the song "Murmur of streams", the filmmakers revealed the secret of how such filming (doubles) was made. At first, we see the same actress (Lyubov Orlova) in two images at once. There is an empty space between the actresses - there is a vertical dividing line.



Actors perform the song "Streams Murmur".

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Towards the end of the song, the actress crosses this border and disappears over the border of the porridge.





The actress crosses the line.

The actress crosses the line.

Film "Spring" , finale.

As you can imagine, such combined shots require absolute immobility of the camera and precise alignment of porridge and countercash. With a slight shift of the camera or with inaccurate alignment of the porridge and countercash, either white lines may appear, due to double exposure of the area, or black lines, when the porridge and countercash slightly overlap.

In the film "Mischievous Twists" (USSR, 1959), two twin sisters are played by the same actress, Terje Luik from Estonia. And there are many scenes where the sisters are in the frame together - for example, the scene in the corridor near the door. Upon closer inspection, you can see a thin white vertical line along the door frame - this is the border of the porridge.



A still from the film "Mischievous Turns". The porridge border (vertical line) is indicated by a red arrow.

A still from the film "Mischievous Turns". The porridge border (vertical line) is indicated by a red arrow.

According to the plot of the film, first one girl comes out of this door into the corridor and then another girl immediately follows. But in slow motion, you can see that only the second sister actually comes out of the door. And the first one does not come out of the door, but from abroad to the porridge - just the borders of the door and the porridge are very close. The freeze-frame shows (indicated by the arrow where to look) that part of the leg and dress is blocked not by a door, but by porridge.

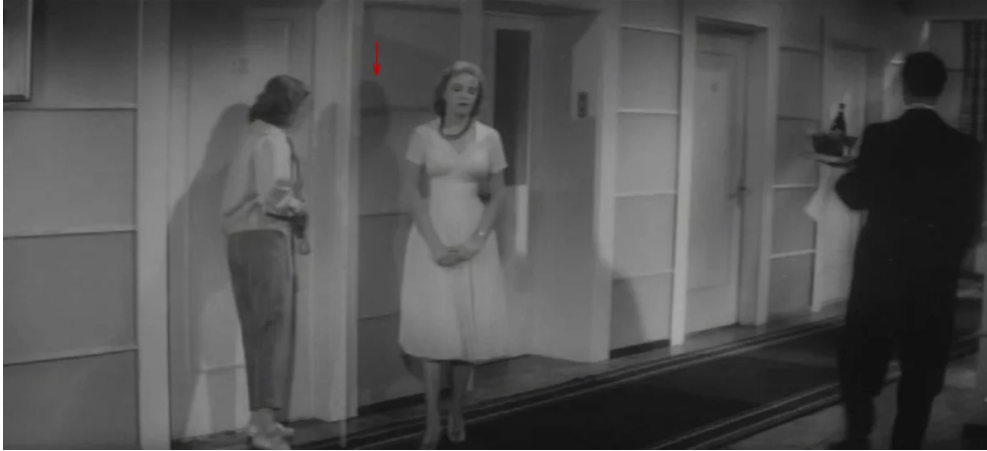


The girl does not come out of the door, but from abroad porridge.

The girl does not come out of the door, but from abroad porridge.

True, this moment lasts a split second and, I think, no one notices it. Likewise, the average viewer does not notice what is happening with

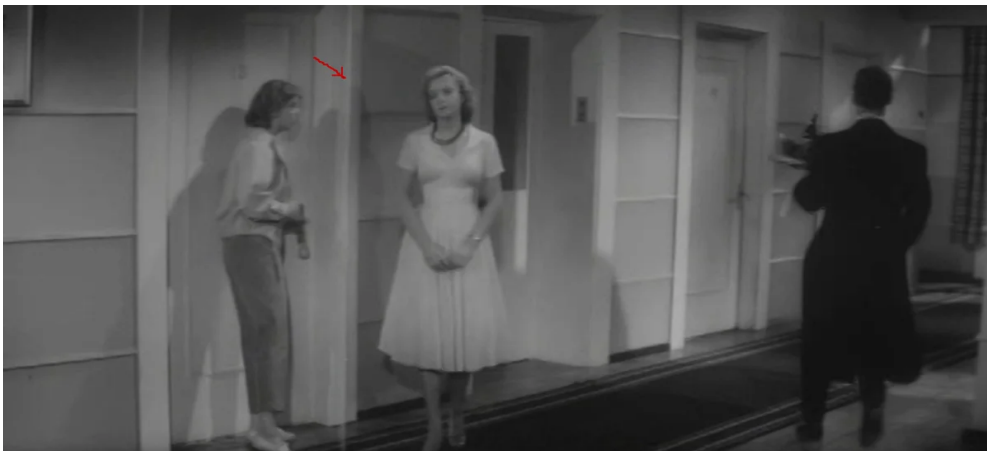
the shadows. Here we see a shadow from the head on the wall - it's an oval.



The arrow indicates the shadow of the head.

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But when the actress (who is on the right) takes a small step forward towards the door, the shadow is clipped by a line of porridge.



The shadow from the head is cut off by the porridge.

The shadow from the head is cut off by the porridge.

In this film, there are scenes where two sisters in the middle ground are not only together, but also interact with each other, for example, one sister straightens a windbreaker for another sister. This is definitely the same actress, and it is definitely a combined shot. Keep in mind that this is 1959, and no computers have ever been in sight. How were such shots taken?



"Doubles" interact with each other.

"Doubles" interact with each other.

The shots were also filmed with the help of porridge and counter-cashe, only the dividing line was not in the form of a straight line, but in the form of an arc. Take a closer look at the next frame - don't you notice anything strange on the neck of the actress who is in the center?



A shot with doubles from the film "Mischievous Twists".

A shot with doubles from the film "Mischievous Twists".

Do you see the highlight? And this highlight continues to the right side of the neck. This is the border of porridge. To help you see it better, I will outline this border roughly by hand with a red line.

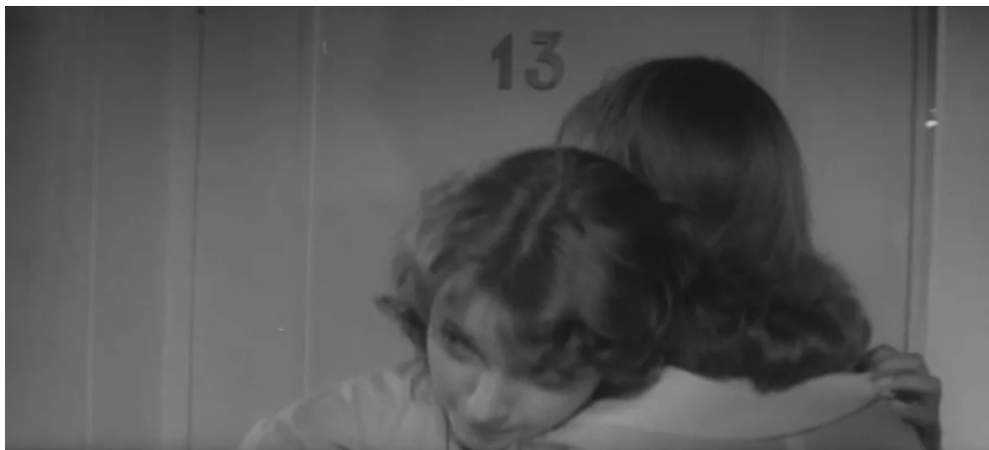


The border of porridge.

The border of porridge.

So, the frame was filmed as follows. In the first exposure, our heroine (she is on the right) and a stunt double in a white dress were in the frame. But the stunt double's head was overlapped by an arched porridge (cut out of black paper), and her face was not visible. But in the second exposure and already through the counter-cashe, only the heroine's face was filmed.

In the previous shot, one of the sisters rested her head on her friend's shoulder, their hair touching.



The previous frame of the scene.

The previous frame of the scene.

But in the next shot, going back to back, at the request of the cameraman, the head had to be pushed to the side so as not to catch the border of the mask. The cameraman sees through the porridge what is included in the frame. The shot in the editing began immediately with raising the head.



The next frame of the scene.

The next frame of the scene.

And it ended with a mise-en-scene already known to us.



Here is a small snippet of the film "[Mischievous turns](#)".

The understudy's most important task was not to move the body, otherwise the head would separate from the body.

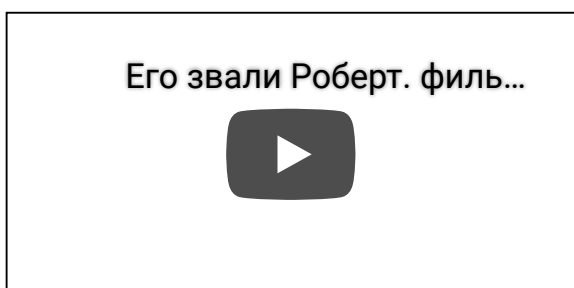
Strict immobility of the body when shooting doubles sometimes gives such a technique. But this immobility can be played out in a plot, as it was done, for example, in the film "His Name was Robert" (1967), because one of the characters is a robot.



A still from the movie "His Name was Robert". Two characters are played by one actor, Oleg Strizhenov.

A still from the movie "His Name was Robert". Two characters are played by one actor, Oleg Strizhenov.

Now you know that in this shot, the robot Robert in a blue jacket consists of two parts: the head is Oleg Strizhenov, and the body is a stunt double. And the frame itself was shot in two exposures, with the help of porridge and countercash.



In the next scene, the same technique is used: an understudy in a blue jacket stands motionless, and his face is covered with a mask (porridge), and next to him, in a red-brown sweater, is the actor O. Strizhenov. Then the porridge is changed to countercash and the head of O. Strizhenov is separately taken off, above the body of the understudy. To exactly stand in the same place where the understudy was standing, the soles of the feet are circled on the floor.

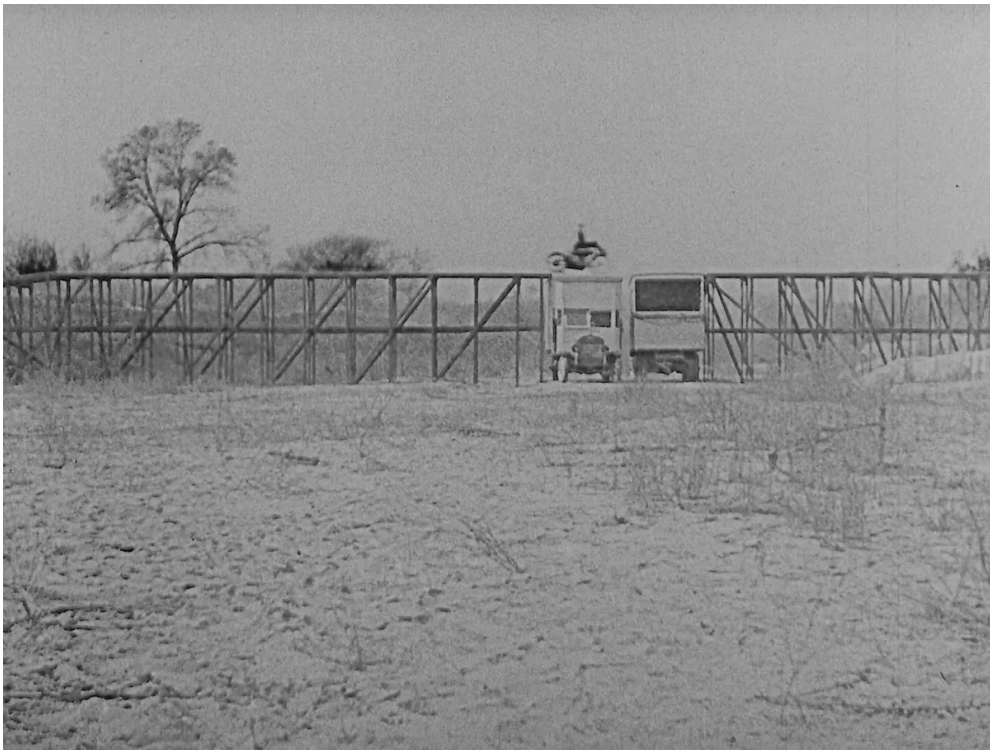


A still from the movie "His Name was Robert".

A still from the movie "His Name was Robert".

But porridge and masks were used not only for filming doubles.

For example, the dangerous stunt of Buster Keaton's passage on a HARLEY motorcycle over a destroyed bridge in the film Sherlock Jr (1924) was filmed in two exposures and also with the help of porridge.



Still from the movie "Sherlock Jr." (1924)

Still from the movie "Sherlock Jr." (1924)



Fragment from the 1924 film

Fragment from the 1924 film

This is such an interesting scene, in addition to double exposure and porridge, models were also used at the time of the collapse of the bridge, so I will certainly tell you about this scene in detail in a separate article.

Sometimes on location it is not possible to simultaneously shoot a frame, which would include individual elements of nature that are of interest to the film crew. It is necessary, for example, to shoot a general plan of a village located against the backdrop of a mountain range. On location, a village was chosen, there are mountains nearby, but when trying to shoot a frame with ordinary shooting, it turns out that with a better camera setting for shooting a village, in the frame you can see inanimate mountains, and with a better camera setting for shooting mountains, the village does not get into the frame at all.

In this case, you can shoot the village and the mountain landscape separately. To do this, put a porridge on the camera compendium, the border of which is made in the shape of the hills located outside the village. With such a mess, the first exposure is removed and the removed film is returned to the beginning with the shutter closed. then the camera is transferred to the second point, from which mountains

can be well captured. The cache in front of the lens is replaced with a countercash, and the mountains are shot at the top of the frame.

In all the examples considered, objects were connected in one frame, which at the points of connection had surfaces close in texture and color. But a completely foreign object, for example, a model, can also act as the second half of the frame. This is then called "Post-frame post-layout method".

In the book "Technique of Combined Shooting" published in 1958, the author B. Gorbachev gives an example from the 1952 film "Concert of Masters of Ukrainian Art":



This shot consists of two parts: the lower part is taken on a real scene, and the upper part is a 3D model.

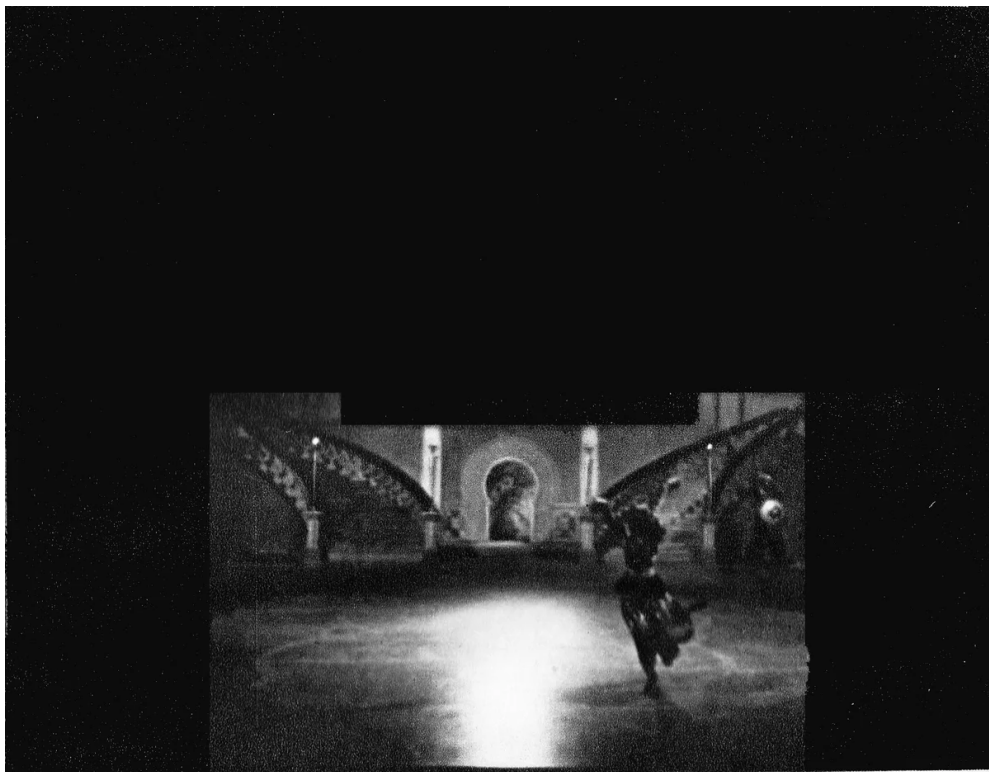


Фото 58.

Построенная в декорации часть кадра, снятая с каше

In addition to this example, the cameraman B. Gorbachev mentions stills from the film "Cinderella" (1947), where also a housekeeping and padding were also used. The horse and carriage are real, and the giant tree above them and the rocks in the distance is a three-dimensional model.



Cinderella in a carriage goes to the ball. A still from the film "Cinderella" (1947).

Cinderella in a carriage goes to the ball. A still from the film "Cinderella" (1947).

The fairy tale film "Cinderella" was originally shot on black and white film. Subsequently, it was restored and in 2009 it was painted by the order of the 1st TV channel. Someone says that the film was painted in America for a million dollars, some of the colorists say that it was painted in India because it is cheaper there. But it doesn't matter to us now. After all, we are discussing the technology of combining two images into one using frame stacking.

You've probably noticed that the word "pre-layout" comes with the word "follow-up". This means that the layout is taken in another place and it is postponed "until later", for example, for several days. First, a game scene is filmed through the porridge, for example, a horse with a carriage rides along the road. Kashe opens only the section of the road where the horses are, the rest of the space is closed. This scene is filmed with a margin that is much longer (longer in time) than is necessary for the film. Then a small piece is cut off from the beginning of the filmed negative, and it appears. A photographic enlargement is made from it, according to which the artist makes an artificial part of the frame in the form of a model. After making the layout, the alignment process begins.

This is how B. Gorbachev describes this process.

The manufactured model is installed in front of the shooting camera, and the operator, looking through a magnifying glass, combines it with the negative of the full-scale part of the frame, inserted into the camera's frame window in contact with the strip of arcosol. After the alignment is achieved, a glass is installed between the camera and the model and a black countercache is glued to it, covering the full-scale part of the frame taken in the first exposure. The layout is illuminated and the first black-and-white test development is carried out.

Viewing the negative, the operator processes the line connecting the model with the full-scale image, tint the border of the countercash with paints of the required color.

You can also tint on glass. The area on the glass, treated with paints, is illuminated by separate lighting fixtures.

This variant of the method of the subsequent sub-layout allows the use of small layouts.



A still from the film "Cinderella". Subsequent domaketka.

A still from the film "Cinderella". Subsequent domaketka.



In all the described methods, the combined frame is obtained immediately in the original.

When we talked about shooting doubles, it was obvious that the first exposure through the porridge and the second exposure through the countercash should be shot without moving the cameras, as quickly as possible, until something changed in the lighting or in the environment. But the main inconvenience is due to the fact that the result of the combined frame can be seen only the next day or every other day - when the negative is shown and the positive is printed. And only then will it suddenly become clear that, for example, a dividing vertical line is visible in the frame, or that the head is not very accurately aligned with the body. And you will have to reshoot the unfinished frame again.

Therefore, later, as we will see, they abandoned the use of porridge and countercash on the set, and they began to combine two images into one already in the laboratory on a trick machine using masks and counter masks.

In the late 50s. In the twentieth century, Kodak developed a wonderful color film for duplication called Intermediate, and after that moment, most of the work on the production of composite shots was transferred to the laboratory.

This will be the continuation of the article - about the use of masks and counter masks and the production of combined frames in the laboratory.

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Cameraman L. Konovalov was with you. Until next time!

